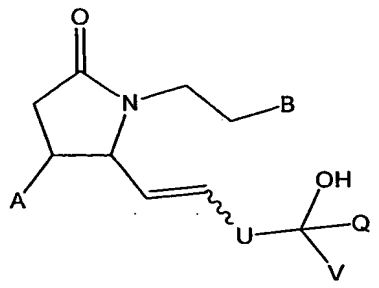
CLAIMS

1. A compound of the following Formula I:



I

wherein

A is hydrogen or hydroxy;

B is selected from optionally substituted carbocyclic aryl and optionally substituted heteroalicyclic having from 3 to 8 ring atoms and at least 1 N, O or S ring atom or a heteroaromatic group having a single ring with 5 or 6 ring atoms and at least one N, O or S ring atom;

U is $(CH_2)_p$ wherein p is selected from 0, 1 and 2;

V and Q are each independently hydrogen, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, C_1-C_6 heteroalkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, C_3-C_6 heterocycloalkyl C_1-C_6 alkyl, arylalkyl, $-CR^1R^2$-W, wherein R^1 and R^2 are independently selected from H and C_1-C_6 alkyl; or R^1 and R^2 can form an C_3-C_6 cycloalkyl with the carbon they are attached to;

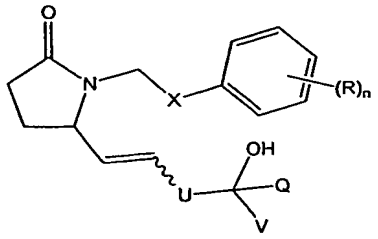
W is selected from hydrogen, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, aryl and heteroaryl; with at least one of V and Q being other than hydrogen; and pharmaceutically acceptable salts thereof.

2. A compound of claim 1 wherein A is hydrogen.

3. A compound of any one of claims 1 or 2 wherein B is optionally substituted carbocyclic aryl.

4. A compound of any one of claims 1 through 3 wherein B is optionally substituted phenyl.

5. A compound of claim 1 having the following Formula II:



II

wherein R is C(=O)Z where Z is selected from hydrogen, hydroxy, optionally substituted alkoxy and optionally substituted alkyl; or R is amino or optionally substituted alkylamine;

X is selected from oxygen, sulfur, sulfinyl, sulfonyl and carbon;

n is an integer selected from 0, 1, 2, 3, 4 and 5;

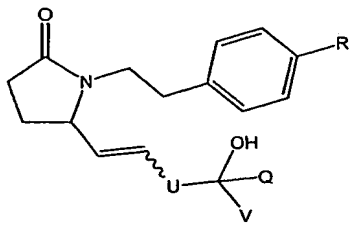
U is $(CH_2)_p$ wherein p is selected from 0, 1 and 2;

V and Q are each independently selected from hydrogen, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, C_1-C_6 heteroalkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, C_3-C_6 heterocycloalkyl C_1-C_6 alkyl, arylalkyl and $-CR^1R^2$-W, wherein R^1 and R^2 are independently selected from H and C_1-C_6 alkyl; or R^1 and R^2 can form an C_3-C_6 cycloalkyl with the carbon they are attached to;

W is selected from hydrogen, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, aryl and heteroaryl; with at least one of V and Q being other than hydrogen; and pharmaceutically acceptable salts thereof.

6. A compound of claim 5 wherein n is 1 or 2.

7. A compound of claim 1 having the following Formula III:



III

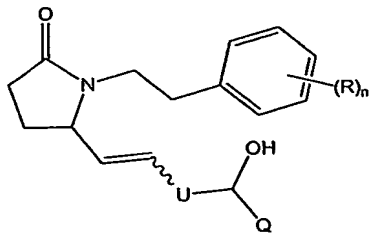
wherein R is C(=O)Z where Z is selected from hydrogen, hydroxy, optionally substituted alkoxy and optionally substituted alkyl; or R is amino or optionally substituted alkylamine;

U is $(CH_2)_p$ wherein p is selected from 0, 1 and 2;

V and Q are each independently selected from hydrogen, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, C_1-C_6 heteroalkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, C_3-C_6 heterocycloalkyl C_1-C_6 alkyl, arylalkyl and –CR^1R^2-W, wherein R^1 and R^2 are independently selected from H and C_1-C_6 alkyl; or R^1 and R^2 can form an C_3-C_6 cycloalkyl with the carbon they are attached to;

W is selected from hydrogen, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, aryl and heteroaryl; with at least one of V and Q being other than hydrogen; and pharmaceutically acceptable salts thereof.

8. A compound of claim 1 having the following Formula IV:



IV

wherein R is C(=O)Z where Z is selected from hydrogen, hydroxy, optionally substituted alkoxy and optionally substituted alkyl; or R is amino or optionally substituted alkylamine;

n is an integer selected from 0, 1, 2, 3, 4 and 5;

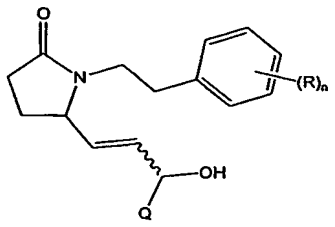
U is $(CH_2)_p$ wherein p is selected from 0, 1 and 2;

Q is optionally substituted from alkyl, preferably having 1 to about 12 carbon atoms, optionally substituted alkenyl preferably having 2 to about 12 carbon atoms, optionally substituted alkynyl preferably having from 2 to about 12 carbon atoms, C_1-C_6 heteroalkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, C_3-C_6 heterocycloalkyl C_1-C_6 alkyl, aryl C_1-C_6 alkyl and –CR^1R^2-W, wherein R^1 and R^2 are independently selected from H and C_1-C_6 alkyl; or R^1 and R^2 can form a C_3-C_6 cycloalkyl with the carbon they are attached to;

W is selected from hydrogen, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, aryl, heteroaryl and aryl C_1-C_6 alkyl; and pharmaceutically acceptable salts thereof.

9. A compound of any one of claims 1 through 8 wherein p is zero.

10. A compound of claim 1 having the following Formula V:



V

wherein R is C(=O)Z where Z is selected from hydrogen, hydroxy, optionally substituted alkoxy and optionally substituted alkyl; or R is amino or optionally substituted alkylamine;

n is an integer selected from 0, 1, 2, 3, 4 and 5;

Q is selected from optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, or optionally substituted arylalkyl, C_1-C_6 heteroalkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, C_3-C_6 heterocycloalkyl C_1-C_6 alkyl, aryl C_1-C_6 alkyl and $-CR^1R^2$-W, wherein R^1 and R^2 are independently selected from H and C_1-C_6 alkyl; or R^1 and R^2 can form an C_3-C_6 cycloalkyl with the carbon they are attached to;

W is selected from hydrogen, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, aryl, heteroaryl and aryl C_1-C_6 alkyl; and pharmaceutically acceptable salts thereof.

11. A compound of claim 10 wherein n is 1 and R is a *para*-substituent.

12. A compound of claim 10 wherein R is -C(O)OH.

13. A compound of claim 10 wherein Q is straight or branched C_1-C_{12} alkyl or optionally substituted arylalkyl.

14. A compound of claim 10 wherein R is -C(O)OH being in a "para" position whereby n is 1; Q is CR^1R^2-W, wherein R^1 and R^2 are independently selected from H and C_1-C_6 alkyl; or R^1 and R^2 can form an C_3-C_6 cycloalkyl with the carbon they are attached to; W is selected from hydrogen, C_1-C_6 alkyl, C_2-C_6 alkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, aryl, heteroaryl and aryl C_1-C_6 alkyl; and pharmaceutically acceptable salts thereof.

15. A compound of claim 10 wherein R is -C(O)OH is in a "para" position; n is 1; Q is CR^1R^2-W, wherein R^1 and R^2 are independently selected from H and C_1-C_6 alkyl; or R^1 and R^2 can form a C_3-C_6 cycloalkyl with the carbon they are attached to; W is selected from hydrogen, C_1-C_6 alkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, and aryl; and pharmaceutically acceptable salts thereof.

16. A compound of claim 1 that is selected from the group consisting of:
4-(2-{(2*R*)-2-[(1*E*,4*S*)-4-hydroxyoct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2*R*)-2-[(1*E*,4*R*)-4-hydroxy-4-(1-propylcyclobutyl)but-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-[2-((2*R*)-2-{(1*E*,4*R*)-4-[1-(cyclopropylmethyl)cyclobutyl]-4-hydroxybut-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-(2-{(2*R*)-2-[(1*E*,4*R*)-4-(1-ethylcyclobutyl)-4-hydroxybut-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2*R*)-2-[(1*E*,3*S*)-3-hydroxy-4,4-dimethyloct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2*S*)-2-[(1*E*,4*S*)-4-hydroxy-4-ethyloct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
-(2-{(2*S*)-2-[(1*E*,4*S*)-4-hydroxy-4-ethyloct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxyoct-1-en-7-ynyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxyoct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzamide;
4-(2-{(2R)-2-[(1E,3R)-3-hydroxy-4-phenoxybut-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-4-(allyloxy)-3-hydroxybut-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R,7S)-3,7-dihydroxyoct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid
4-(2-{(2R)-2-[(1E,3S,7S)-3,7-dihydroxyoct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R,7R)-3,7-dihydroxyoct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E)-3-hydroxy-5-morpholin-4-ylpent-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxyhepta-1,6-dienyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;

4-(2-{(2R)-2-[(1E,3S)-4-cyclopropyl-3-hydroxybut-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-4-cyclopentyl-3-hydroxybut-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-4-cyclopentyl-3-hydroxybut-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-4-cyclopropyl-3-hydroxybut-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-6-methylhept-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-5-methylhex-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-5,5-dimethylhex-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-6-cyclopropyl-3-hydroxyhex-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-3-hydroxy-5-methoxypent-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-5-methoxypent-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(5R)-2-oxo-5-[(1E,3S)-6,6,6-trifluoro-3-hydroxyhex-1-enyl]pyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-4-cyclohexyl-3-hydroxybut-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxypent-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxyhex-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-6-methoxyhex-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S,7R)-3,7-dihydroxyoct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-4-(4-chlorophenyl)-3-hydroxy-4-methylpent-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-[2-((2R)-2-{(1E,3S)-3-[1-(cyclopropylmethyl)cyclobutyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-[2-((2R)-2-{(1E,3R)-3-[1-(cyclopropylmethyl)cyclobutyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-(2-{(2S)-2-[(3S)-3-(1-butylcyclobutyl)-3-hydroxypropyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;

4-(2-{(2S)-2-[(3R)-3-(1-butylcyclobutyl)-3-hydroxypropyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-3-hydroxy-3-(1-phenylcyclopentyl)prop-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-3-(1-phenylcyclopentyl)prop-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-[2-((2R)-2-{(1E,3R)-3-[1-(4-chlorophenyl)cyclopropyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-[2-((2R)-2-{(1E,3S)-3-[1-(4-chlorophenyl)cyclobutyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid
4-[2-((2R)-2-{(1E,3R)-3-[1-(4-chlorophenyl)cyclobutyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-[2-((2R)-2-{(1E,3S)-3-[1-(4-chlorophenyl)cyclopropyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-[2-((2R)-2-{(1E,3S)-3-hydroxy-3-[1-(4-methylphenyl)cyclopentyl]prop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-[2-((2R)-2-{(1E,3R)-3-hydroxy-3-[1-(4-methylphenyl)cyclopentyl]prop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-4-(4-chlorophenyl)-3-hydroxy-4-methylpent-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-[2-((2R)-2-{(1E,3S)-3-[1-(4-fluorophenyl)cyclopentyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-[2-((2R)-2-{(1E,3R)-3-[1-(4-fluorophenyl)cyclopentyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-[2-((2R)-2-{(1E,3R)-3-[1-(2-fluorophenyl)cyclopentyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-[2-((2R)-2-{(1E,3S)-3-[1-(2-fluorophenyl)cyclopentyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-[2-((2R)-2-{(1E,3S)-3-[1-(4-chlorophenyl)cyclopentyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-[2-((2R)-2-{(1E,3R)-3-[1-(4-chlorophenyl)cyclopentyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-4-(3-methylphenyl)but-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-5-phenylpent-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxyhept-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;

4-(2-{(2R)-2-[(1E,3S)-4-(3-chlorophenyl)-3-hydroxybut-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-4-phenylbut-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2S)-2-[(3R)-3-hydroxy-4-methyl-4-phenylpentyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-4-methyl-4-phenylpent-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-3-hydroxy-4-methyl-4-phenylpent-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2S)-2-[(3S)-3-hydroxynonyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-[2-((2R)-2-{(1E,3S)-3-[1-(3-fluorophenyl)cyclopentyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-[2-((2R)-2-{(1E,3R)-3-[1-(3-fluorophenyl)cyclopentyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxynon-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-[2-((2R)-2-{(1E,3S)-3-hydroxy-3-[1-(2-phenylethyl)cyclobutyl]prop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-[2-((2R)-2-{(1E,3R)-3-hydroxy-3-[1-(2-phenylethyl)cyclobutyl]prop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-3-(1-propylcyclobutyl)prop-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid
4-(2-{(2R)-2-[(1E,3R)-3-hydroxy-3-(1-propylcyclobutyl)prop-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid
4-(2-{(2R)-2-[(1E,3R)-3-(1-benzylcyclobutyl)-3-hydroxyprop-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E)-3-hydroxy-3-methyloct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E)-4-hydroxyoct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-(1-butylcyclobutyl)-3-hydroxyprop-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-3-(1-butylcyclobutyl)-3-hydroxyprop-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-4,4-dimethyloct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-3-hydroxy-4,4-dimethyloct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;

4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-3-(1-phenylcyclopropyl)prop-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-3-hydroxy-3-(1-phenylcyclopropyl)prop-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-7-methyloct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;

4-(2-{(2R)-2-[(1E,3S)-5-cyclopentyl-3-hydroxypent-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid; and pharmaceutically acceptable salts thereof.

17. A compound according to claims 1 to 16 for use as a medicament.

18. A method for treating a disease or disorder associated with prostaglandin, comprising administering to a mammal suffering from or susceptible to such a disease or disorder an effective amount of a compound of any one of claims 1 through 16.

19. A method of claim 18 wherein the mammal is suffering from or susceptible to asthma.

20. A method of claim 18 wherein the mammal is suffering from or susceptible to hypertension.

21. A method of claim 18 wherein the mammal is suffering from or susceptible to undesired blood clotting.

22. A method of claim 18 wherein the mammal is suffering from or susceptible to infertility or a fertility disorder.

23. A method of claim 18 wherein the mammal is suffering from or susceptible to an eosinophil disorder.

24. A method of claim 18 wherein the mammal is suffering from sexual dysfunction.

25. A method of claim 18 wherein the mammal is suffering from or susceptible to glaucoma or other disorder involving elevated intraocular pressure.

26. A method of claim 18 wherein the mammal is suffering from or susceptible to renal dysfunction.

27. A method of claim 18 wherein the mammal is suffering from or susceptible to an immune deficiency disease or disorder.

28. A method of claim 18 wherein the mammal is suffering from or susceptible to AIDS.

29. A method of claim 18 wherein the mammal is suffering from or susceptible to undesired bone loss.

30. A method of claim 18 wherein the mammal is suffering from or susceptible to preterm labor.

31. A method of claim 18 wherein the mammal is suffering from or susceptible to dysmenorrhea.

32. A method of claim 18 wherein the mammal is a female in late stage pregnancy and in need of control of cervical ripening.

33. A method of claim 18 wherein the mammal is suffering from or susceptible to preelampsia or eclampsia.

34. A method of claim 18 wherein the mammal is suffering from or susceptible to ichthyosis.

35. A method of claim 18 wherein the mammal is suffering from or susceptible to dry eye.

36. A method of claim 18 wherein the mammal is suffering from or susceptible to a sleep disorder.

37. A method of claim 18 wherein the mammal is suffering from or susceptible to gastric ulcers.

38. A method of claim 18 wherein the mammal is suffering or susceptible to undesired muscle contraction.

39. A method of claim 18 wherein the mammal is suffering or susceptible to inflammatory disorders.

40. A method of claim 18 wherein the mammal is suffering from or susceptible to erectile dysfunction.

41. A method of any one of claims 18 through 40 wherein the mammal is a human.

42. A method of any one of claims 18 through claim 39 wherein the mammal is a female.

43. A method of claim 42 wherein the female is suffering from or susceptible to infertility.

44. A method of claim 42 wherein the female is suffering from an ovulatory disorder.

45. A method of any one of claims 18 through 41 wherein the mammal is a male.

46. A method for treating a mammal suffering from or susceptible to preterm labor, dysmenorrhea, asthma, hypertension, a fertility disorder, undesired blood clotting, preelampsia, eclampsia, an eosinophil disorder, undesired bone loss, sexual dysfunction, renal dysfunction, an immune deficiency disorder, dry eye, ichthyosis, elevated intraocular pressure, a sleep disorder, or a gastric ulcer, inflammatory disorder, comprising administering to the mammal an effective amount of a compound of any one of claims 1 through 16.

47. Use of a compound of any one of claims 1 through 16 for preparation of a medicament to treat a disease or disorder associated with prostaglandin.

48. Use of a compound of any one of claims 1 through 16 for preparation of a medicament to treat preterm labor, dysmenorrhea, asthma, hypertension, a fertility disorder, undesired blood clotting, preelampsia, eclampsia, an eosinophil disorder, undesired bone loss, sexual dysfunction, renal dysfunction, an immune deficiency disorder, dry eye, ichthyosis, elevated intraocular pressure, a sleep disorder, a gastric ulcer or an inflammatory disorder.

49. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and one or more compounds of any one of claims 1 through 16.

50. A pharmaceutical composition of claim 48 wherein the compound is packaged together with instructions for use of the compound to treat preterm labor, dysmenorrhea, asthma, hypertension, infertility or a fertility disorder, sexual dysfunction, undesired blood clotting, a destructive bone disease or disorder, preeclampsia or eclampsia, an eosinophil disorder, renal dysfunction an immune deficiency disorder, dry eye, ichthyosis, elevated intraocular pressure, sleep disorder, or gastric ulcer.

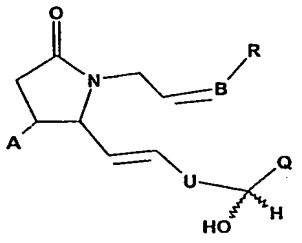
51. A method of treating a fertility condition in a female, comprising the administration to said female a prostaglandin EP4 receptor agonist, a pro-drug thereof or a pharmaceutical acceptable salt of said compound, pro-drug or a diastereoisomeric mixture of said compound, salt or pro-drug.

52. A method of claim 51 wherein the condition is infertility.

53. A method of claim 51 wherein the condition is an ovulatory disorder.

54. A method of any claims 51 to 53 wherein the female is undergoing an ovulation induction or ART treatments.

55. A method of any claims from 51 to 54 wherein the prostaglandin EP4 receptor agonist is selected among compounds of formula VI:



VI

wherein A is H or OH, preferably H;

B is selected from C_1-C_6 alkyl, aryl C_1-C_6 alkyl, aryl C_1-C_6 heteroalkyl, heteroaryl C_1-C_6 alkoxy, aryl, heteroaryl, C_3-C_6 cycloalkyl and C_3-C_6 heterocycloalkyl, provided that when B is aryl, heteroaryl, C_3-C_6 cycloalkyl and C_3-C_6 heterocycloalkyl, the undefined bond linking B is a single bond;

The dotted line indicates an optional double bond;

R is C(=O)Z wherein Z is selected from hydrogen, hydroxy, alkoxy, alkyl and aryl; or Z is selected from amino or alkylamine such as $-NR^1R^2$ wherein R^1 and R^2 are independently selected from hydrogen and alkyl, $-NHSO_2R^3$ and $-NHC(O)R^3$ wherein R^3 is selected among C_1-C_6 alkyl and aryl; or R is heteroaryl;

U is $(CH_2)_p$ wherein p is an integer selected from 0, 1 and 2;

Q is $-CR^4R^5$-W, wherein R^4 and R^5 are independently selected from H, halogen and C_1-C_6 alkyl; or R^4 and R^5 can form a C_3-C_6 cycloalkyl with the carbon they are attached to;

W is selected from hydrogen, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_3-C_6 heterocycloalkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, C_3-C_6 heterocycloalkyl C_1-C_6 alkyl, aryl, heteroaryl, aryl C_1-C_6 alkyl and heteroaryl C_1-C_6 alkyl; and pharmaceutically acceptable salts thereof.

56. A method of claim 55 wherein the prostaglandin EP4 receptor agonist is selected among compounds of formula VI, wherein A is H; B is C_1-C_6 alkyl whereby B is linked by a single bond; R is C(=O)Z wherein Z is selected from hydrogen, hydroxy, alkoxy such as –O-alkyl and alkyl; or Z is selected from amino or alkylamine such as $-NR^1R^2$ where R^1 and R^2 are independently hydrogen or alkyl, $-NHSO_2R^3$ and $-NHC(O)R^3$ wherein R^3 is selected among C_1-C_6 alkyl and aryl; U is $(CH_2)_p$ wherein p is 0; Q is $-CR^4R^5$-W, wherein R^4 and R^5 are independently selected from H, halogen and C_1-C_6 alkyl; W is selected from C_3-C_6 cycloalkyl, C_3-C_6 heterocycloalkyl, optionally substituted aryl and heteroaryl; and pharmaceutically acceptable salts thereof.

57. A method of claim 55 wherein the prostaglandin EP4 receptor agonist is selected among compounds of formula VI, wherein A is H; B is C_1-C_6 alkyl; R is C(=O)Z wherein Z is selected from hydrogen, hydroxy, alkoxy; or R is heteroaryl; U is $(CH_2)_p$ wherein p is 0; Q is $-CH_2$-W, wherein W is selected from C_3-C_6 cycloalkyl, C_3-C_6 heterocycloalkyl, aryl and heteroaryl; and pharmaceutically acceptable salts thereof.

58. A method of claim 55 wherein the prostaglandin EP4 receptor agonist is selected among compounds of formula VI, wherein A is H; B is selected from aryl C_1-C_6 alkoxy, $-CH_2$-aryl and $-CH_2$-heteroaryl whereby B is linked by a single bond; R is C(=O)Z wherein Z is selected hydrogen, hydroxy and alkoxy; or R is heteroaryl; U is $(CH_2)_p$ wherein p is 0; Q is $-CH_2$-W, wherein W is selected from C_3-C_6 cycloalkyl, C_3-C_6 heterocycloalkyl, aryl and heteroaryl; and pharmaceutically acceptable salts thereof.

59. A method of claim 55 wherein the prostaglandin EP4 receptor agonist is selected among compounds of formula VI wherein A is H; B is substituted aryl whereby B is linked by a single bond; R is C(=O)Z wherein Z is hydroxy; U is $(CH_2)_p$ wherein p is 0; Q is $-CR^4R^5-W$, wherein R^4 and R^5 are independently selected from H and C_1-C_6 alkyl; or R^4 and R^5 can form a C_3-C_6 cycloalkyl with the carbon they are attached to; W is selected from C_1-C_6 alkyl, C_3-C_6 cycloalkyl C_1-C_6 alkyl, C_3-C_6 cycloalkyl, aryl and substituted phenyl; and pharmaceutically acceptable salts thereof.

60. A method of claim 55 wherein the prostaglandin EP4 receptor agonist is selected from the group consisting of:
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-4-phenylbut-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-4-(3-chlorophenyl)-3-hydroxybut-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-3-hydroxy-3-(1-phenylcyclopropyl)prop-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-6-cyclopropyl-3-hydroxyhex-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxyhepta-1,6-dienyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-(1-butylcyclobutyl)-3-hydroxyprop-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxy-6-methylhept-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-[2-((2R)-2-{(1E,3R)-3-[1-(cyclopropylmethyl)cyclobutyl]-3-hydroxyprop-1-enyl}-5-oxopyrrolidin-1-yl)ethyl]benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxyoct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-3-(1-butylcyclobutyl)-3-hydroxyprop-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3R)-3-hydroxy-4,4-dimethyloct-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2R)-2-[(1E,3S)-3-hydroxynon-1-enyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2S)-2-[(3R)-3-hydroxy-4-(3-methylphenyl)butyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
4-(2-{(2S)-2-[(3R)-3-hydroxy-5-phenylpentyl]-5-oxopyrrolidin-1-yl}ethyl)benzoic acid;
and pharmaceutically acceptable salts thereof.